

[10191/2138]

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

-----X In re Application of: : Examiner: Srilakshmi K. Kumar Harold SCHACH et al. **ILLUMINATION AND DISPLAY** For: **DEVICE** Filed: May 17, 2002 : Art Unit 2675 I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail Serial No.: 10/030,638 Mak Stop Affer BRIEF PATENTS in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

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P.O. Box 1450

Alexandria, VA 22313-1450

Signature:

AARON C. DEDITCH

(33,865)

APPEAL BRIEF TRANSMITTAL

SIR:

Accompanying this Appeal Brief Transmittal is an Appeal Brief pursuant to 37 C.F.R. § 41.37 in triplicate as a courtesy (even though not required) for filing in the above-identified patent application.

Please charge the appropriate fees of \$500.00, which includes the Appeal Brief fee under 37 C.F.R. § 1.17(c) (which is believed to be \$500.00) to Deposit Account No. 11-0600. The Commissioner is also authorized, as necessary and/or appropriate, to charge any additional and appropriate fees, including any Rule 136(a) extension fees, or credit any overpayment to Deposit Account No. 11-0600. Two duplicate copies of this transmittal are enclosed for these purposes.

Respectfully submitted,

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THE UNITED STATES PATENT AND TRADEMARK OFFICE **BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re Application of:

: Examiner: Srilakshmi K. Kumar

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For:

ILLUMINATION AND DISPLAY

DEVICE

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AARON'C. DEDITCH

(33,865)

APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37

SIR:

In the above-identified patent application ("the present application"), the Appellant mailed a Notice of Appeal on January 19, 2006 from the Final Office Action issued by the United States Patent and Trademark Office on August 10, 2005. This Notice of Appeal was received by the Patent Office on January 23, 2006. Accordingly, the two-month appeal brief date is March 23, 2006.

In the Final Office Action, claims 10 to 25 were finally rejected. A Response After Final was mailed on November 10, 2005. An Advisory Action was mailed on December 21, 2005.

It is understood for purposes of the appeal that any Amendments to date have already been entered by the Examiner, and that the Response After Final does not require entry since it included no amendments.

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As to the length of the "concise explanation" of the subject matter defined in each of the claims involved in the appeal (see 41.37), the "concise explanation" language is like the "concise explanation" requirement of former Rule 37 C.F.R. § 1.192. Accordingly, the length of the concise explanation provided is therefore acceptable, since it would have been acceptable under 37 C.F.R. § 1.192 and since it specifically defines the subject matter of the independent claims involved in the appeal. In the filing of many appeal briefs under the old rule for the present Assignee, the length of the "concise explanation" has always been accepted by the Patent Office.

It is therefore respectfully submitted that this Appeal Brief complies with 37 C.F.R. § 41.37. Although no longer required by the rules, this Brief is submitted in triplicate as a courtesy to the Appeals Board.

It is respectfully submitted that the final rejections of claims 10 to 25 should be reversed for the reasons set forth below.

1. REAL PARTY IN INTEREST

The real party in interest in the present appeal is Robert Bosch GmbH, Postfach 30 02 20, 70442 Stuttgart, Federal Republic of Germany. Bosch is the assignee of the entire right, title, and interest in the above-identified application.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences "which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal."

3. STATUS OF CLAIMS

CLAIMS 1 TO 9 ARE CANCELED.

A. Claims 10 to 25 stand finally rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,964,515 ("Ikeuchi") in view of U.S. Patent No. 5,050,045 ("Kato").

Appellants appeal from the final rejections of claims 10 to 25. A copy of the appealed claims is attached hereto in the Claims Appendix.

4. <u>STATUS OF AMENDMENTS</u>

In response to the Final Office Action issued on August 10, 2005, a Response was filed on November 10, 2005. The Response did not include any amendments to the claims.

It is understood for purposes of this appeal that any Amendments to date have already been entered by the Examiner, and that the Response After Final does not require entry since it included no amendments.

5. SUMMARY OF CLAIMED SUBJECT MATTER

In contrast to other devices that illuminate a pointer scale and two different scale markings of a display instrument, by only one light source, the illumination device of the presently claimed subject matter has the advantage that the first scale marking can be illuminated by a first light source and the second scale marking can be illuminated by an optical waveguide using light separately from the pointer scale. In this regard, the light path from the first light source to the scale markings is separated from an illumination of the pointer scale by light funnels, making undisturbed illumination of the pointer scale or parts of the pointer scale possible, so that parts of the pointer scale can also be switched or illuminated with a different color that that of the scale marking. Therefore, a second light

source for the second scale markings can be eliminated. (See Page 1, lines 14 to 21 of the Specification.)

The illumination device of the presently claimed subject matter can be used in various display instruments having at least one pointer scale and two markings of such a pointer scale, including, for example, a display instrument in a motor vehicle. In this regard, Figure 1 shows a speedometer 11 arranged on a dial face 5 in the shape of a semicircle, the instantaneous speed of the vehicle being shown by a position of a pointer 12 over a pointer scale 20, which has a first scale marking 21 with values from "0" to "160" (mph), and a second scale marking 23 with an auxiliary scale 24, the values of the second scale marking 23 ranging from "20" to "260" (km/h). The pointer scale 20, which is used to display a target speed, is made up of individual segments 26, each of which can be illuminated individually. (See page 3, lines 4 to 13, of the Specification.)

An illumination device extends behind speedometer 11 so that the first scale marking 21 and the second scale marking 23 can be illuminated together with an auxiliary scale 24 while segments 26 of pointer scale 20 are separate from this and can be illuminated individually in segments. In this regard, as pointer 12 displays an instantaneous vehicle speed, the illumination segments 26 of pointer scale 20 display a target speed of the vehicle (e.g., a cruise control speed). For example, scale segments 26 may be illuminated to the desired speed, e.g., 80 mph, while all scale segments above this target speed remain darkened, or alternatively, a change of color of the illumination, e.g., green up to a target speed and red above the target speed, may be provided. (See page 3, lines 14 to 24, of the Specification.)

Figure 2 shows a top view from the position of the dial face 5 to the illumination device in the area of speedometer 11 which is located behind the dial face 5. In an area beneath pointer scale 20, homogeneous light funnels 31, 31', and 31", have been placed in a support 30, a homogeneous light source 32, 32', 32" being arranged at the bottom of each light funnel. The size of light funnels 31, 31', 31" corresponds roughly to segments 26, 26', 26", with the result that one segment 26 of pointer scale 20 is illuminated via each light funnel 31, 31', 31" with the associated light source 32, 32', 32". A first light source 33 is arranged outside support 30 and below scale marking 21. An optical waveguide 34, which adjoins the inside of the circle formed by support 30, has output surfaces 36 that are used to output the light that is injected from first light source 33 into optical waveguide 34 and output in the direction of second scale markings 23 or auxiliary scale 24. Support 30, which is made

of a reflective material, deflects the light emitted from the second light source 32 into light funnel 31, and at the same time, deflects the light output from optical waveguide 34 in a direction of dial face 5. (See page 3, line 33 to page 4, line 20 of the Specification.)

Figures 3 and 4 show a sectional view of the illumination device of Figure 2 along lines III to III and IV to IV, respectively. In Figure 3, the light emitted from first light source 33 backlights first scale marking 21 and also radiates into optical waveguide 34 through area 34' of the optical waveguide and is deflected by output surfaces 36 in the direction of second scale marking 23 and auxiliary scale 24. Second light source 32 beams light into light funnel 31, which directs the light toward a segment 26 of the pointer scale 20. See page 4, line 22 to page 5, line 8, of the Specification.

In summary, the presently claimed subject matter of claim 10 is to an illumination device for a display instrument, including: a dial face; a pointer scale arranged on the dial face; a first scale marking of the pointer scale arranged on a first side of the pointer scale on the dial face; at least one of a second scale marking of the pointer scale and an auxiliary scale arranged on a second side of the pointer scale on the dial face; a first light source for illuminating the first scale marking; an optical waveguide into which a light of the first light source is injected, the light being deflected from the optical waveguide to the second scale marking; at least one second light source for illuminating the pointer scale; and a light funnel arranged between the at least one second light source and the pointer scale, in which a light path from the at least one second light source to the pointer scale is separated from the optical waveguide by the light funnel. (See claim 10).

Finally, the appealed claims include no means-plus-function language and no step-plus-function claims, so that 37 C.F.R. 41.37(v) is satisfied as to its specific requirements for such claims, since none are present here. Also, the present application does not contain any step-plus-function claims because the method claims in the present application are not "step plus function" claims because they do not recite "a step for", as required by the Federal Circuit and as stated in Section 2181 of the MPEP.

6. GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 10 to 25 are obvious under 35 USC § 103(a) over the <u>Ikeuchi</u> reference in view of the <u>Kato</u> reference.

7. ARGUMENTS

A. Claims 10 to 25 are not obvious over **Ikeuchi** in view of **Kato**.

Claims 10 to 25

Claims 10 to 25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the <u>Ikeuchi</u> reference in view of the <u>Kato</u> reference. It is respectfully submitted that none of claims 10 to 25 is obvious over the <u>Ikeuchi</u> reference in view of the <u>Kato</u> reference for at least the following reasons.

For a claim to be rejected for obviousness under 35 U.S.C. § 103(a), not only must the prior art teach or suggest each feature of the claim, but the prior art must also suggest combining the features in the manner contemplated by the claim. <u>See Northern</u> Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990).

The Examiner bears the initial burden of establishing a prima facie case of obviousness. M.P.E.P. § 2142. To establish a prima facie case of obviousness, the Examiner must show that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references and that, when so modified or combined, the prior art teaches or suggests all of the claim features. M.P.E.P. § 2143. Appellants respectfully submit that these criteria for obviousness are not met here.

Claim 10 is to an illumination device for a display instrument, including: a dial face; a pointer scale arranged on the dial face; a first scale marking of the pointer scale arranged on a first side of the pointer scale on the dial face; at least one of a second scale marking of the pointer scale and an auxiliary scale arranged on a second side of the pointer scale on the dial face; a first light source for illuminating the first scale marking; an optical waveguide into which a light of the first light source is injected, the light being deflected from the optical waveguide to the second scale marking; and also includes at least one second light source for illuminating the pointer scale; and a light funnel arranged between the at least one second light source and the pointer scale, in which a light path from the at

least one second light source to the pointer scale is separated from the optical waveguide by the light funnel.

It is respectfully submitted that <u>Ikeuchi</u> and <u>Kato</u> do not disclose, or even suggest, the features of a light funnel arranged between a pointer scale and at least one second light source for illuminating the pointer scale, such that a light path from the at least one second light source to the pointer scale is separated from an optical waveguide for illuminating scale markings of the pointer scale, as provided for in the context of claim 10. In this regard, the Final Office Action merely asserts that <u>Ikeuchi</u> discloses these features of claim 10 but provides no support or explanation for its assertions. The <u>Ikeuchi</u> reference only refers to illuminating the pointer devices with one lamp only, in which the light of this one lamp is coupled onto a wave guide and diffused (see col. 3, lines 1 to 27). It does not disclose or suggest that the path of the light from this lamp be separated from the light of a second lamp -- let alone separated with a funnel, as provided for in the context of claim 10.

Furthermore, there is no suggestion in <u>Ikeuchi</u> (or in <u>Kato</u>) that the two scale markings to be illuminated are arranged on different sides of the pointer scale so that the pointer scale and scale markings can be illuminated differently while the illumination of the pointer scale marking is nevertheless homogenous. Indeed, a separate illumination of the pointer scale and of the pointer scale markings via a first and second light source, as in claim 10, is not even discussed in the <u>Ikeuchi</u> and <u>Kato</u> references.

As provided for in claim 10, the light path of the second light source to the pointer scale is separated from the optical waveguide by the light funnel, which means, that light from the second light source may reach the pointer scale. But because of the separation of the light path, it is not able to reach the optical waveguide, and thus not the first scale marking or the second scale marking arranged on the opposite of the first scale marking. The <u>Ikeuchi</u> reference, by contrast, does not show a corresponding separation of the light paths. In particular, the light source 10b referred to by <u>Ikeuchi</u> illuminates the entire dial via light conducting plate 10c. In this regard, even if one skilled in the art were motivated to consider the different plurality of scale markings on different sides of the pointer scale as shown in FIG. 3 of <u>Kato</u> (which is not conceded), the skilled artisan would get as far as simply to provide an additional scale marking on the dial. Thus, the combination of <u>Ikeuchi</u> and <u>Kato</u> additionally does not disclose or suggest the feature of separating the light path of a second light source to the pointer scale from the light path transmitted in the optical waveguide for illuminating the scale markings, as provided for in the context of claim 10.

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For at least the foregoing reasons, the combination of <u>Ikeuchi</u> and <u>Kato</u> fails to disclose or suggest all of the features of claim 10. Accordingly, even if it were proper to combine the <u>Ikeuchi</u> and <u>Kato</u> references as suggested (which is not conceded, as explained below in further detail) it is respectfully submitted that such combination does not render unpatentable claim 10.

Claims 18 and 20 include features like those of claim 10 and are therefore allowable for the same reasons as claim 10. Claims 11 to 17 and 21 to 25 depend from claim 10, and are therefore allowable for the same reasons as claim 10.

It is also respectfully submitted that the Office Action's asserted suggestion to combine the Ikeuchi and Kato references is plainly based on nothing more than hindsight reasoning. In this regard, in rejecting a claim under 35 U.S.C. § 103, Applicant's invention "must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time." Indeed, the Office Action does not even assert that it would have been obvious at the time the invention was made to make such a combination. Accordingly, combining these prior art references without evidence of a proper suggestion, teaching, or motivation "simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability — the essence of hindsight." In re Dembiczak, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999).

As further regards all of the obviousness rejections of the claims, it is respectfully submitted that not even a *prima facie* case has been made in the present case for obviousness, since the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the "factual predicates underlying" a *prima facie* "obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art")). It is respectfully submitted that the proper test for showing obviousness is what the "combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art", and that the Patent Office must provide particular findings in this regard — the evidence for which does not include "broad conclusory statements standing alone". (See *In re Kotzab*, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made "concerning

the identification of the relevant art", the "level of ordinary skill in the art" or "the nature of the problem to be solved"))). It is respectfully submitted that there has been no such showings by the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellant and this Board to resort to unwarranted speculation to ascertain exactly what facts underlie the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See In re Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing In re Warner, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper prima facie unpatentability case — which has not been met in the present case. (See In re Oetiker, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

In view of the foregoing, reversal of the obviousness rejections of claims 10 to 25 is respectfully requested.

CONCLUSION

In view of the above, it is respectfully requested that the rejections of claims 10 to 25 be reversed, and that these claims be allowed as presented.

Respectfully submitted,

Dated: 3/23/3

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APPENDIX

- 1-9. (Canceled)
- 10. (Previously Presented) An illumination device for a display instrument, comprising:
 - a dial face;
 - a pointer scale arranged on the dial face;
- a first scale marking of the pointer scale arranged on a first side of the pointer scale on the dial face;
- at least one of a second scale marking of the pointer scale and an auxiliary scale arranged on a second side of the pointer scale on the dial face;
 - a first light source for illuminating the first scale marking;
- an optical waveguide into which a light of the first light source is injected, the light being deflected from the optical waveguide to the second scale marking;
 - at least one second light source for illuminating the pointer scale; and
- a light funnel arranged between the at least one second light source and the pointer scale, wherein:
 - a light path from the at least one second light source to the pointer scale is separated from the optical waveguide by the light funnel.
- 11. (Previously Presented) The illumination device according to claim 10, further comprising:
 - a circuit board on which is arranged the at least one second light source.
- 12. (Previously Presented) The illumination device according to claim 10, further comprising:
 - at least one second light funnel, wherein:

the at least one second light source includes a plurality of other light sources, the pointer scale is illuminated by the plurality of other light sources,

each of the plurality of other light sources is arranged in a respective one of the light funnel and the at least one second light funnel, and

the optical waveguide proceeds between at least two of the light funnel and the at least one second light funnel from the first light source to the at least one of the second scale marking and the auxiliary scale.

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13. (Previously Presented) The illumination device according to claim 12, wherein:

the pointer scale includes a plurality of scale segments,

at least one of the plurality of other light sources is assigned to one of the plurality of scale segments, and

the plurality of other light sources are able to be electrically activated individually and one of a brightness and a color of the plurality of other light sources is changeable.

- 14. (Previously Presented) The illumination device according to claim 13, wherein: the plurality of other light sources include a plurality of light-emitting diodes.
- 15. (Previously Presented) The illumination device according to claim 10, wherein: the light funnel includes a reflective material.
- 16. (Previously Presented) The illumination device according to claim 15, wherein: the reflective material includes a white plastic material.
- 17. (Previously Presented) The illumination device according to claim 12, further comprising:

a circuit board; and

a support in which the light funnel and the at least one second light funnel are interconnected, wherein:

the optical waveguide is held against the circuit board by the support.

18. (Previously Presented) A display instrument, comprising:

an illumination device that includes:

- a dial face,
- a pointer scale arranged on the dial face,
- a first scale marking of the pointer scale arranged on a first side of the pointer scale on the dial face,
- at least one of a second scale marking of the pointer scale and an auxiliary scale arranged on a second side of the pointer scale on the dial face,
 - a first light source for illuminating the first scale marking,

an optical waveguide into which a light of the first light source is injected, the

light being deflected from the optical waveguide to the second scale marking, at least one second light source for illuminating the pointer scale, and a light funnel arranged between the at least one second light source and the pointer scale, wherein:

a light path from the at least one second light source to the pointer scale is separated from the optical waveguide by the light funnel.

- 19. (Previously Presented) The display instrument according to claim 18, further comprising:
 - a diffusing screen arranged between the dial face and the first light source.
- 20. (Previously Presented) A cruise control display in a vehicle, comprising:
 - a processing unit; and
 - a display instrument including an illumination device that includes:
 - a dial face,
 - a pointer scale arranged on the dial face,
 - a first scale marking of the pointer scale arranged on a first side of the pointer scale on the dial face,
 - at least one of a second scale marking of the pointer scale and an auxiliary scale arranged on a second side of the pointer scale on the dial face,
 - a first light source for illuminating the first scale marking,
 - an optical waveguide into which a light of the first light source is injected, the light being deflected from the optical waveguide to the second scale marking,
 - at least one second light source for illuminating the pointer scale, and
 - a light funnel arranged between the at least one second light source and the pointer scale, wherein:
 - a light path from the at least one second light source to the pointer scale is separated from the optical waveguide by the light funnel,
 - an actual vehicle speed is displayed by the cruise control display by a pointer, and
 - a desired speed is displayed by the cruise control display by illuminating segments of the pointer scale of the display instrument.

CLAIM APPENDIX 3

- 21. (Previously Presented) The illumination device according to claim 10, wherein: the pointer scale is configured to display a target speed.
- 22. (Previously Presented) The illumination device according to claim 21, wherein: the first scale marking is configured in units of miles per hour and the second scale marking is configured in kilometers per hour.
- 23. (Previously Presented) The illumination device according to claim 10, wherein the pointer scale includes a plurality of individually-illuminated segments.
- 24. (Previously Presented) The illumination device according to claim 13, wherein: the plurality of other light sources includes a plurality of incandescent lamps.
- 25. (Previously Presented) The illumination device according to claim 13, wherein: the plurality of other light sources includes a plurality of glow lamps.

EVIDENCE APPENDIX

No evidence has been submitted pursuant to 37 C.F.R. §§1.130, 1.131, or 1.132. No other evidence has been entered by the Examiner or relied upon by Appellant in the appeal.

RELATED PROCEEDINGS APPENDIX

There are no interferences or other appeals related to the present application.